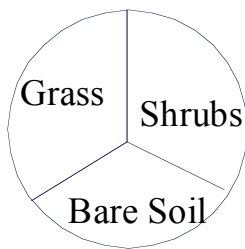




THE COVEY HEADQUARTERS

Volume 4 Issue 3 Fall 2005

This newsletter is aimed at cooperators and sportspeople in Missouri to provide information on restoring quail. This is a joint effort of the Missouri Department of Conservation, USDA-Natural Resources Conservation Service, University of Missouri Extension and Quail Unlimited. If you would like to be removed from this mailing list or have suggestions for future articles please contact jeff.powelson@mdc.mo.gov or 816-232-6555 x122 or write to the address shown.



The name of this newsletter is taken from an old concept....that a quail covey operates from a headquarters (shrubby cover). If the rest of the covey's habitat needs are nearby, a covey should be present. We are encouraging landowners to manage their quail habitat according to this concept. Use shrubs as the cornerstone for your quail management efforts. Manage for a diverse grass, broadleaf weed and legume mixture and provide bare ground with row crops, food plots or light disking **right next to** the shrubby area.

CHOP and DROP for Speedy Quail Restoration

Bill White, Private Land Programs Supervisor, Jefferson City

Based on covey and quail pair response reports from landowners and agency staff across the state it appears that one of the quickest ways to entice quail to your property is to add edge feathering or fenceline and woody draw renovations to your habitat restoration efforts. **If quail are in the area** they might make a beeline for your property. You must be addressing all quail habitat needs in order for this to work, but the evidence is mounting that edge feathering can really help. More and more edge feathering has been occurring each year and we are getting more and more reports of quail response from the effort. Reports from Cass County MDC Private Land Conservationist Nick Prough and Quail Unlimited Buffer Coordinator Andy Carmack:

"We had another case on a new CP-33 landowner of quail nesting in the enhancement occur this week with the clipping and spraying only occurring about 10-14 days earlier. The landowner is very excited and he cannot believe that they are already using the edge feathering since he had not seen quail in that area in several years! He and his father are farmers who both have contracts and are now looking at more areas to do CP-33 on!"

"On another farm we saw a covey consisting of 12 birds in recently edge-feathered timber. The landowner received CP-33 buffer enhancement dollars to enhance his 100' native warm season grass buffer. This new covey was in the edge feathered area within 10 days of it being clipped. The landowner was thrilled. On this same farm an additional new location of a covey was sighted this week in last years edge feathering Quail Habitat Initiative project where the trees were wind-rowed and fescue sprayed under the clippings. The covey had 8-10 birds and was using the area where a CP33 buffer strip was installed only a week ago."

"Today has been pretty incredible in sightings and hearing quail for mid-June in the middle of the day. While we were working near a quail demo farm in the quail focus area we stopped to straighten a sign and heard quail nearly everywhere. Two were heard in the edge feathering from last year, two in the chop and drop on the waterway from a month ago, three along the cropfield edge next to the buffer, two whistling across the road on the backside of the edge feathering completed a month ago, three across the road diagonally on a new CP-33 landowner which we just completed enhancement and clipping/chop and drop a couple weeks ago, and two on a neighbor across the road just loafing in an older treeline. All of this occurred in about 10 minutes and the best thing was Tom Lampe (Quail Unlimited) and 3 landowners happen to be coming down the road behind us and they all got to witness the sightings and hearings of all the quail and everyone including the edge feathering

contractor (Bryan Winters) and landowners where "high fiving" on the edge of the road. As Tom and I said when we were driving off we knew this habitat work had to help and it definitely has and is continuing to build upon itself each and every project.'



Private Land Conservationist Jeff Powelson of St. Joseph said: I had two landowners yesterday tell me "I have heard and seen more quail this spring than I can remember." Both landowners were referring to the areas around their newly planted CP33 buffers with enhancement edge feathering projects that were completed within the past couple of months.

MDC Area Biologist Travis Dinsdale and NRCS Soil Conservationist Paul Frese report from a Gentry County edge feathering study site: "Conducted breeding bird surveys on Howard Township WHIP Project. Edge feathering on 2 of the 3 landowners is complete. Heard several quail whistling in the edge feathering. Flushed several quail and they flew into edge feathering. Several rabbits and songbirds were using the new habitat as well. It is amazing how fast quail move into new edge feathered areas."

Please refer to past newsletters, the coveyheadquarters.com website or our How-to Edge feathering video/DVD to find out more about edge feathering. Make sure you do not stack downed trees, leave them lay where they drop whenever possible or 'windrow' them. **Just CHOP and DROP.** Also, it is imperative that you kill existing sod before the trees are dropped or quail use will be limited.

Did You Know??? A Nebraska pheasant study on CRP lands is showing that pheasant nests are not as susceptible to predators where CRP is managed with disking, burning AND alfalfa interseeding when compared to unmanaged monocultures of switchgrass or brome. This same study area has pheasant numbers showing increases in areas where CRP management is being implemented. Visit your local USDA office and modify your CRP contract to include management practices like disking, burning, and chemical suppression. Receive cost-share for interseeding clover, lespedeza, alfalfa, and wildflowers into the disturbed ground.

Mark Your Calendars

Prescribed Burn Workshops

August 27, 2005 at The Café, Owensville, MO. Workshop begins at 9AM.
Contact Diana Mayfield at 573-437-3478 for more information.

September 15, 2005 at the Gerald Fire House, Gerald, MO. Workshop begins at 6PM.
Contact Nathen Boone at 573-764-3189 for more information.

Quail Habitat Improvement Workshops

September 10, 2005 near Linneus, MO in Linn Co. Contact Steve Fisher at 816-261-5135 for more details.

October 1, 2005 at Bushwhacker Lake CA in Vernon Co. There will be a classroom portion in the morning followed by a field tour in the PM. Lunch is provided. Those interested can register at 417-667-8137 ext. 3.

October 15, 2005 at the Jerry L. Litton Visitor Center, Smithville Lake. Hands on demonstrations, such as light disking, legume interseeding, edge development, prescribe burning. Workshop begins at 9AM. Registration required by calling the MDC Liberty Office at 816-792-8662.

Banquets

September 24, 2005 Northwest Missouri Pheasants Forever 4th Annual Banquet at the Eagles Lodge 2 miles south of Maryville on Hwy 71. Silent and Live Auction Previews 5:30-7:00PM
Dinner at 7:00PM Live Auction at 8:00PM

Plants You Should Know: Broomsedge Bluestem – Yes, it is a good grass for wildlife!

Aaron P. Jeffries, Wildlife Services Biologist, Jefferson City, MO

Broomsedge bluestem (*Andropogon virginicus*) is a native warm-season grass found throughout Missouri in pastures, hay meadows, old fields and prairies. An abundance of broomsedge in a field is a good indicator of low soil fertility. Broomsedge is easily identified in the fall by its bright tan foliage and silvery white seed plumes. Broomsedge commonly reaches a height of 2 to 4 feet. Like other warm-season grasses, broomsedge is a bunch grass and provides excellent cover for quail and other wildlife. Broomsedge is of little food value to wildlife as a forage or seed source.

If you want to establish warm-season grasses and you already have a good stand of broomsedge in a cool-season grass pasture (at least 40% coverage), you can simply manage for broomsedge instead of replanting the field to other warm-season grasses. First mow, hay, graze or burn the field in August to better prepare the field for a fall herbicide application. Then in late October or early November, after a killing frost, spray the field with a non-selective herbicide to eradicate the undesirable cool-season grasses.

That winter you can further enhance the field for quail and other wildlife by overseeding native wildflowers, legumes and maybe some little bluestem and side oats grama. For best results spread the seed sometime between November and February (a dormant seeding). Maintain the field by conducting a management practice (prescribed burn, light disk) on 1/3 of the field each year.



Broomsedge Bluestem
Andropogon virginicus
USDA-NRCS PLANTS Database /
Hitchcock, A.S. (rev. A. Chase).
1950. *Manual of the grasses of the*
United States. USDA Misc. Publ. No.
200. Washington, DC.

Build it and they will come...

Can Habitat Really Make a Difference?

December of 2001 my wife and I purchased 600 acres of property in Harrison and Daviess Co. Our initial goal was to get back to our rural roots, enjoy hunting, and outdoor recreation. Little did I know that my obsessive compulsive type A personality would be unleashed on providing optimal habitat for upland game birds and other wildlife. As we inventoried our wildlife during the first hunting season, we quickly found an abundance of deer and turkey but a near absence of quail, pheasant and rabbits. As amazing as it may seem, we were not overrun with predators like hawks and coyotes. We found a mere 3 covey of quail, no pheasant and an occasional rabbit. The big question was "Where have the birds gone and why"? How can it get any better than CRP grassland mixed with cropland, ponds, creeks and woods? Walking the fence rows (or lack of), grass fields and woodland borders the answer was simple. Lots of land and no "real habitat"! Crop fields extended to tree borders, old fence rows bulldozed and fescue/brome prevailed, old fields overgrown with locust trees and CRP fields contained densely matted grasses with locust invading. I contacted the local NRCS offices, met with MDC private land conservationists (Doug Clemons and John Murphy) and together we developed a plan to provide the optimal habitat to bring back quail and pheasant. I enrolled any available property in WHIP, marginal pasture restoration (CP29), field border (CP33), CRP BOB, LAWS and signed all existing CRP up for the new management practices involving burning, disking and herbicide management of CRP grasses. I quickly found real enjoyment in implementing these plans. Any "free time" is devoted to edge feathering, disking, shrub planting and the ever exciting prescribed burns. Immediate response resulted from the combination of habitat management practices. Any one practice alone will not have a lasting effect for birds.

We examined existing habitat then attempted to provide the missing pieces of the puzzle (food, nesting areas, brood rearing habitat and escape/survival areas). For example, choose a draw which extends out into the grass field. You have grass and trees which alone are useless to birds. Begin by killing the invading grass with herbicide or fall disking along the tree edge (20-30ft border) then fall trees over the treated or disked area. **(DO NOT pile brush)** This process may take 2-3 hours, depending on equipment, but it will provide the resources for a covey headquarters. Within the first year, ragweed will prosper where fescue or brome existed. Wild plum, dogwood and aromatic sumac will magically appear along with the quail. The next step is to remove the dense grass that builds up in any field left idle for more than 3 years. Burning at the appropriate time seems to be my best management tool for grassland management. Burning generates immediate bare dirt and great brood rearing areas. Lack of the dense grass aids the quail chicks to easily move about and feed on the abundant bugs that are available. My largest burns are not more than 15 acres each. The only mowing I do is in late July to set up for burn lines, next years food plots, or for fall disking. Attempting to enhance the resources available for quail and pheasant to thrive has given me as much enjoyment as the actual hunt itself. Our current covey count is approximately 17 coveys and pheasant are everywhere. There are some areas with 3 coveys per 40 acres. I have some areas that I can nearly guarantee a covey rise or pheasant flush. On one deer hunt this winter I counted 16 rabbits along the $\frac{3}{4}$ mile grass path on the way to the stand, listened to 3 coveys open at daylight and watched a cock pheasant work the edge of a food plot adjacent to recent edge feathering and disked strips in the CRP. These moments are "priceless". The most enjoyment yet was to witness my 9 year old son shoot his first quail in flight this fall over a beautiful point by my Brittany. Although my initial goal was for recreational hunting, the current goal is to use my farms habitat transformation and wildlife response to educate those among us who resist the idea that habitat is the key to wildlife success. **Wayne Fry, Harrison Co.**



Quail brood report

While passing a year old CRP planting of native warm season grasses, forbs, and alfalfa last evening, I observed a brood of sparrow-sized chicks on the side of the road. I stopped and they flew across into the CRP. I was startled by the number of chicks – 22 and no adult(s)! Thinking that an adult may have crossed the road before I got there, I got out and flushed the brood again, 22 and no adult! These birds appeared to be on there own. A few evenings before, I stopped by the same property and heard a huge number of bobwhite whistles. If all the hens have broods this large, it will indeed be a banner year. By the way, most of the trees on this 160 acres have been cut or treated and there are more quail as well as turkeys than ever before. Four turkey nests were found in May while spraying teasel and still the quail thrive!!! **Steve Clubine, Grassland Specialist, MDC**

Editor's note – These birds were potentially 'orphaned' by the adult. Telemetry researchers that have observed multiple broods per hen have speculated that hens do abandon some broods early on. This appears to be one of the ways quail can rebound. Research has shown under exceptional nesting seasons, quail populations can increase 300-400%.

Did You Know???

Predation is not the cause of the quail decline. No Missouri animals prey exclusively, or even mainly on quail. Studies have shown that quail make up only 2% of the diet of mammals and at most 6% of the diets of birds of prey. Predator control has been practiced for years throughout the bobwhite range, but it has never proven to be a substitute for habitat management.



Are Your Field Edges Losing You Money? This photo shows a crop field adjacent to woods. The trees are competing with the bean crop for light and moisture. The Brittany pup is in easy view. Beans are short and stressed.

Take a look at your crop fields this fall before harvest. Locate your low yield edges and enroll 30 to 120 feet of these field edges into USDA's Continuous CRP CP33 Practice - Habitat Buffers for Upland Birds.

SIGN UP FOR CP33 AND GET THESE INCENTIVES:

- * **Annual CRP Rental Payment**
- * **\$100/acre Signup Bonus**
- * **Up to 90% Cost-Share**
- * **Do Your Part and Help Missouri Bring Back Bob!**



Look at the same field below – this picture was taken 40 feet into the field from the previous picture. Light and moisture competition is minimal. Can you see the Brittany now?

Whistle Count Procedures

To provide a measurement of quail production just prior to hunting season, listen for covey calls during the last 3 weeks of October. Begin listening 45 minutes before sunrise. Continue until birds whistle or sunrise if you hear no whistling. Fall coveys usually whistle about 25 minutes before sunrise and for less than 30 seconds. Listen only on clear mornings when the wind is less than 5 mph. Under most circumstances you should be able to hear all coveys within 500 yards of your listening point. Permanently mark your listening stations and write down the number of coveys you hear in a journal. This will allow you to monitor your population trends from year to year and see if your quail management practices are working.

Did You Know???

One of the native foods most commonly used by bobwhite quail in Missouri is the common ragweed-the bane of allergy sufferers. It also has a vegetative structure that makes it attractive for brood-rearing and roosting. It can be encouraged by fall and winter disturbance of the vegetation and soil surface. Such activities as prescribed burning, light disking, grazing, and herbicide application will result in a flush of ragweed from the natural seedbank in the soil. Even idled food plots can produce a flush of ragweed the first year. Spring disturbances will not encourage ragweed.

Energy Value of Seeds

The relative value of seeds to quail during winter can be calculated from the seeds' energy value and size. Below lists the number of seeds needed per 24-hour day to meet energy needs of a single quail during different temperatures.

Number of seeds needed per day to meet energy needs

Temperature	70 F	32 F	0 F	0 F
Activity Level	Low	Low	Low	High
Corn	41	49	69	94
Soybean	103	122	174	236
Milo	666	788	1,121	1,520
Sunflower	1,165	1,379	1,961	2,660
Black locust	1,250	1,479	2,104	2,854
Partridge pea	3,601	4,261	6,062	8,223
Common ragweed	3,870	4,580	6,515	8,837
Smooth sumac	6,125	7,248	10,310	13,985
German millet	8,418	9,962	14,171	19,222
Korean lespezea	9,480	11,218	15,959	21,647
Switchgrass	27,524	32,570	46,331	62,846

Try Fall for a Better Brome and Fescue Kill

As bobwhite quail enthusiasts, most of us know that fescue and brome are not the best grasses for promoting quail habitat. However, getting rid of these grasses on your farm is not the easiest thing to do. Spring treatments of chemical are often ineffective because of the massive spring flush of growth from below. Fall chemical treatments work well because plants are naturally moving energy into underground root storage and happen to take chemical ingredients with them. Fall (Sept. – Nov.) is a great time to spray under edge feathered areas, in native plantings, and for native conversions. If you are planning to plant shrubs into fescue or brome next spring, spray those areas too. Some guidelines:

Glyphosate (Roundup, Touchdown, generic brand, etc.)

Apply 1-2 qts./ac. of glyphosate to actively growing fescue or brome (Oct-November)
Apply second treatment in spring if needed

Journey (imazapic + glyphosate)

Apply 32 oz./ac. of Journey to actively growing fescue or brome
Apply treatment of 1-2 qts./ac. of glyphosate in spring if needed

Outrider (sulfosulfuron)

Apply 1.33 oz./ac. of Outrider to actively growing fescue or brome
Apply a second treatment 20 days later

Each of these chemical treatments will often require a second treatment in the spring to take care of fescue and brome seed or any missed spots. See complete information in the publication: Guidelines for Converting Tall Fescue to Other Forages or Herbaceous Cover, available at your local USDA Service Center.

Use a Prescribed Fire to Improve Your Upland Game Habitat

Naturally occurring fires have historically been an important factor in determining plant and animal distribution and composition in Missouri. While natural fires are random and uncontrolled, prescribed burning is the process of applying a controlled fire to a predetermined area to meet certain management objectives. One of the primary uses of prescribed fire is to manipulate or manage vegetation for the benefit of wildlife species. The timing of the burn depends on your management objective. Some things to consider:

1. Have a management objective before burning, such as promoting wildflowers, or creating brood habitat.
2. Fall and winter burns tend to favor wildflowers in mixed stands and help improve plant structure.
3. Burning in spring and fall of the same year greatly reduces stands of fescue and brome.
4. **For the greatest wildlife benefits**, native warm season grasses should be burned between August 15th and March 15th. Cool season grasses should be burned between March 15th and May 1.
5. Fields should be burned on a three to five year rotation. Try to burn no more than 1/3 of your grassland acres each year.

Prescribed Burn Quick Reference Table

Dark shading indicates cool-season grass activity. Light shading indicates warm-season activity.

Management Objective	Jan	Feb-Mar	April	May	June	July	Aug	Sept	Oct	Nov-Dec
Stimulate cool-season grass										
Seedbed preparation for legumes										
Stimulate germination of legumes										
Set back cool-season grasses										
Stimulate legumes and weeds in warm-season (WSG) stands										
Seedbed preparation for interseeding legumes or forbs into WSG stands										
Thicken poor stands of native grass										
Control woody invasion										
Stimulate native forb growth in WSG										
Set-back WSG dominance										

Did You Know???

The Missouri Department of Conservation has added an additional 10 Private Land Conservationists to assist with habitat development on private land. New locations include – Troy, Trenton, Mount Vernon, El Dorado Springs, Doniphan, Ellington, Owensville, Sullivan, Ste Genevieve, and Eminence. Visit <http://www.mdc.mo.gov/landown/contacts.html> for contact information or call the local USDA office in each county.

Fall Covey Headquarters Calendar

September

Plant wheat, barley, or rye into tilled firebreaks or food plots this month.

Spray underneath shrubby and edge feathered areas to set back fescue and brome through Nov.

Spray serotia lespedeza by Sept. 15.

Spray fescue and brome along areas you plan to edge feather this winter through Nov.

October

Light disk 1/3 of your CRP fields through Dec. 31.

Use chemicals to set back 1/3 of your CRP cool season grass fields through Dec. 1.

Spray native grass plantings for invading brome and fescue after a killing frost.

Conduct fall quail covey counts on calm mornings one half hour before sunrise.

November

Conduct edge feathering, woody draw and fence row renovations now through March.

Basal spray undesirable trees with labeled herbicides now through March.

Order your Covey Headquarter shrubs (plum, dogwoods, indigo bush, hazelnut, etc.) from the MDC nursery.



The Covey Headquarters Newsletter
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RETURN SERVICE REQUESTED